

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY AT
UNION, MO., ON JANUARY 9, 1923.

February 8, 1923.

To the Commission:

On January 9, 1923, there was a rear-end collision between two freight trains on the Chicago, Rock Island & Pacific Railway at Union, Mo., resulting in the death of one person carried under contract, and the injury of three persons carried under contract.

Location and method of operation.

This accident occurred on that part of the St. Louis-Kansas City Division extending between Eldon and St. Louis, Mo., a distance of 159.9 miles. This is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. Under the rules trains are required to keep at least 10 minutes apart except in closing up at stations or at meeting or passing points. The accident occurred within yard limits, at a point approximately 2,525 feet west of the station at Union, and about 2,800 feet east of the west yard-limit board. Approaching from the west there is a compound curve to the right, 2,760 feet in length, the maximum curvature of which is 5°, then 324 feet of tangent, followed by a curve of 3° 01' to the left 2,223 feet in length, the accident occurring at a point 162 feet from the leaving end of this curve. The grade is descending for eastbound trains, varying from 0.85 to 1.0 per cent. The weather was clear at the time of the accident, which occurred at about 1 a.m.

Description.

Eastbound freight train first No. 96 consisted of 41 cars and a caboose, hauled by engine 2554 and was in charge of Conductor Green and Engineman Silsby. This train passed Leslie, the last open office, 14.5 miles from Union, at 11.14 p.m., arrived at Union at 12 47 a.m., had taken coal and water, the engine coupled to the train, and was preparing to depart when the rear end was struck by train second No. 96.

Eastbound freight train second No. 96 consisted of 28 cars and a caboose, hauled by engine 2129 and was in charge of Conductor Sanders and Engineman Hyre. This train left Eldon at 7 p.m., and collided with the rear end of first No. 96 at Union while traveling at a low rate of speed.

The caboose of train first No. 96 was badly damaged, caught fire, and was destroyed, the first car ahead of the caboose was derailed. Slight damage was sustained by engine 2129, of train second No. 96.

Summary of evidence.

On the arrival of train first No. 96 at Union, Conductor Green instructed Flagman Monroe to ascertain if the markers were burning and on being informed that they were, he and the flagman proceeded to the telegraph office, located a short distance beyond the head end of the train, each inspecting one side of the train en route; no member of the crew was at the rear of the train at the time of the accident.

Rule 93, of the Rules and Regulations for the Government of Employees of the Operating Department, reads as follows:

"Yard limits will be indicated by 'Yard Limit' boards. Within these limits, the main tracks may be used, clearing the time of first class trains as prescribed for inferior trains by Rules 86 and 89. Unless the main track is seen or known to be clear, second and third class and extra trains must move within yard limits under control.

"Whoever obstructs the main track within yard limits must protect by a flagman when the obstruction cannot, for any reason, be plainly seen from approaching train for a distance of at least seven hundred and fifty (750) feet. In case of a collision the responsibility rests with moving train or engine.

"By night or in stormy or foggy weather proper lights must be displayed on all trains, cars or engines obstructing main tracks within yard limits.

"Trains carrying passengers must be protected at all times."

There were several live stock caretakers riding in the caboose of train first No. 96, but Conductor Green did not consider them as passengers, and thought that that part of rule 93, which provides that trains carrying passengers must be protected at all times did not apply in this instance, and as he thought the rear of the train could be seen a distance of 750 feet, he considered he was within the meaning of that part of rule 93 which relieves the crew of the necessity of flagging when the obstruction within yard limits can be plainly seen from approaching train for a distance of at least seven hundred and fifty (750) feet, and did not, therefore, instruct Flagman Monroe to protect the train. The flagman interpreted the rule the same as the conductor. Engineman Silsby did not know there were any caretakers in the caboose and said he did not whistle out a flagman as he estimated a following train had considerably more than 750 feet unobstructed view of the rear of his train.

Engineman Hyre, of train second No. 96, stated he knew train first No. 96 was one hour and five minutes ahead of his train at Belle, 45.7 miles west of Union, and on approaching Union reduced speed to about 15 miles an hour at the station mile board. He further reduced speed to about 10 miles an hour at the point of curve to the left, where it is customary for the fireman to call the indication of signals ahead, and upon inquiry as to the condition of the track, the fireman replied "All clear." He held the air brakes on a few seconds and then released them; his train had run about 10 car lengths after he had released the air brakes when the fireman called to him that there was a train ahead; he immediately placed the brake valve in the emergency position, opened the sanders, and reversed the engine, but said he was unable to stop on account of the train line not being sufficiently charged. He estimated the distance from where he released the brakes to the point of accident at 20 or 25 car lengths. He stated that no trouble was experienced in making stops between Eldon, the initial terminal and the point of accident, and thought the brakes were in proper working order.

The testimony of Fireman Colbert, of train second No. 96, was practically the same as that of Engineman Hyre, regarding the speed of their train and information given the engineman approaching Union. He stated his train was about 30 car lengths from the caboose of train first No. 96 when he told the engineman that the track was clear, at this time he could see two green lights, which he thought were switch lights. They were about 10 car lengths from the caboose when he discovered three red lights and called a warning to the engineman. No smoke or steam obstructed his view and as he had not put in a fire since leaving Jeffriesburg, 5.4 miles west of Union, his vision was not blurred by the glare of the fire. Head brakeman Sullivan, who was riding on the fireman's side of the engine, thought the caboose markers when first seen were about 25 car lengths distant. Investigation showed that the rear end of a train could be seen a distance of 1,700 feet, but on account of the curvature the fireman would not get as clear a view of the red lights as if on tangent track. There were some switches near the point of accident, but their indications were obscured from the fireman's view by the cars of train first No. 96. In this connection, however, it is to be noted that Flagman Immell, of train second No. 96, who was riding in the caboose, said that when the smoke was blown to one side, just before the accident occurred, he was able to see one red light.

According to Train Master Correll a test of all the brakes on train second No. 96 was made subsequent to the collision and only two were found cut out and one with more than 9 inches piston travel. Conductor Sanders said he found two cut out, three inoperative, and two with excessive piston travel, but from the testimony of Engineman Hyre it

is evident that the braking power was sufficient to control his train when properly used, as he had experienced no difficulty in making several stops en route, and had traveled a distance of about 100 miles.

Conclusions.

This accident was caused by the failure of Conductor Green and Flagman Monroe of train first No. 96 to protect their train, and by Fireman Colbert and Head Brakeman Sullivan, of train second No. 96, not properly observing track conditions ahead, Fireman Colbert incorrectly informing the engineman that the track was clear, resulting in failure of Engineman Hyre of train second No. 96 properly to control his train.

Rule 33 specifically provides that trains carrying passengers must be protected at all times. There were several live stock caretakers in the caboose of train first No. 96. These caretakers had nothing to do with the operation of the train, nor were they employees of the railroad, and the only proper interpretation to be placed on the provision of the rule previously quoted is that the train carrying them should be protected accordingly. Conductor Green and Flagman Monroe took no measures whatever for the protection of their train while standing at this point. Had proper protection been afforded by them this accident would undoubtedly have been prevented; and Conductor Green and Flagman Monroe are therefore considered primarily responsible for this accident.

According to Fireman Colbert, he did not see the red markers on the rear of train first No. 96 until they were only about 10 car lengths distant. Head Brakeman Sullivan thought they were about 35 car lengths away. In any event, when it was finally discovered that there was a train on the track ahead it was too late to enable the engineman to bring the train to a stop. Had the fireman and head brakeman been fully attentive to their duty, they could have discovered the presence of the train ahead and conveyed correct information to the engineman in ample time to enable him to stop.

On the line where this accident occurred trains were operated by the time table and train order system, and the engine crew of train second No. 96, when approaching Union, had no means other than by watching ahead, to ascertain whether or not the track was occupied. According to the statement of Engineman Hyre, he knew the first section was an hour ahead of the second section about 45 miles farther west. Had an adequate block system been in use on this line, the engine crew of second No. 96 would have had definite information that they were closing up on the preceding section and would have been warned of danger in time to have taken necessary measures to prevent the accident.

Approaching Union from the east there are curves and a descending grade, these conditions affecting both the control of trains and the range of vision. At Union trains take coal and water and meet and pass, and it is believed that in order to provide proper safeguards at this point signals should be installed to give the engineman of an approaching train definite information as to whether or not the main track is occupied.

The crew of train first No. 96 had been on duty about $8\frac{1}{2}$ hours, and the crew of train second No. 96 about 6 hours, previous to which these employees had been off duty periods ranging from 17 hours to several days.

Respectfully submitted,

W. P. BORLAND,

Director.